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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,249	12/31/2003	Shigehiro Yoshida	1163-0487P	6978
2292	7590	06/30/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			MONBLEAU, DAVIENNE N	
			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/748,249

Applicant(s)

YOSHIDA, SHIGEHIO

Examiner

Davienne Monbleau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12-31-03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The IDS filed on 12/31/03 has been acknowledged and a signed copy of the PTO-1449 is attached herein.

Abstract

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Title

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the pattern on the surface of the substrate must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet,

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even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 1 recites the limitation "the main body" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the engaging hole" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the interior direction" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the side" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the surface" in line 8. There is insufficient antecedent basis for this limitation in the claim.

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Claim 2 recites the limitation "the side" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the main body" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the engaging hole" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the interior direction" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the side" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the surface" in 8. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "the side" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the main body" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the engaging hole" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the interior direction" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the surface" in line 9. There is insufficient antecedent basis for this limitation in the claim.

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Claim 6 recites the limitation "the main body" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the engaging hole" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the interior direction" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the surface" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischbach et al. (U.S. 6,713,677).

Regarding Claim 1, *Fischbach* teaches in Figure 1 a surface-mounting type optical device comprising an active member (2) that is attached at the bottom of the main body (8) of the optical device a portion of which is inserted in the engaging hole of a substrate (3-6, 13) and that receives light emitted from the interior direction of the substrate (3-6, 13), an electrode member (14) that is connected to a pattern formed on the surface of the substrate (3-6, 13), and electrically connects the pattern and the active member (2), and a step portion (7) that is formed in part of the main body (8) of the optical device and engages the substrate (3-6, 13). *Fischbach*

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does not teach that said active member (2) is a light-emitting member. It would have been obvious, however, to one of ordinary skill in the art at the time of the invention to apply the surface-mounting configuration in *Fischbach* for a light-emitting device because it is well known in the art that efficient mounting devices may be used interchangeably between light sources and light detectors depending on the desired use of the optical system. *Fischbach* does not teach that said electrode member (14) is led out from the side of the main body of the optical device. It would have been obvious, however, to one of ordinary skill in the art at the time of the invention to use particular electrical connections to optimize the efficiency of the light-receiving member by minimizing loss and preventing the device from over-heating.

Regarding Claim 3, *Fischbach* teaches in Figure 1 a surface-mounting type optical device comprising a light-receiving member (2) that is attached at the bottom of the main body (8) of the optical device a portion of which is inserted in the engaging hole of a substrate (3-6, 13) and that receives light emitted from the interior direction of the substrate (3-6, 13), an electrode member (14) that is connected to a pattern formed on the surface of the substrate (3-6, 13), and electrically connects the pattern and the light-receiving member (2), and a step portion (7) that is formed in part of the main body (8) of the optical device and engages the substrate (3-6, 13). *Fischbach* does not teach that said electrode member (14) is led out from the side of the main body of the optical device. It would have been obvious, however, to one of ordinary skill in the art at the time of the invention to use particular electrical connections to optimize the efficiency of the light-receiving member by minimizing loss and preventing the device from over-heating.

Regarding Claims 2 and 4, *Fischbach* teaches in Figure 1 that the step portion (7) is formed on the side of the main body (8) of the optical device which is opposite the side thereof from which the electrode member (14) is led out.

Regarding Claim 5, *Fischbach* teaches in Figures 1 and 4 a surface-mounting type optical device comprising an active member (2) that is attached at the bottom of the main body (8) of the optical device a portion of which is inserted in the engaging hole of a substrate (3-6, 13) and that receives light emitted from the direction of the interior of the substrate (3-6, 13), a step portion (7) that is formed in part of the main body (8) of the optical device and engages the substrate (3-6, 13). *Fischbach* further teaches in Figure 4 an electrical contact (16) to connect the active member (2) to the substrate (3-6, 13) but does not teach that the electrical contact (16) is exactly on the step portion (7). It would have been obvious, however, to one of ordinary skill in the art at the time of the invention to use particular electrical connections to optimize the efficiency of the light-receiving member by minimizing loss and preventing the device from over-heating. *Fischbach* does not teach that said active member (2) is a light-emitting member. It would have been obvious, however, to one of ordinary skill in the art at the time of the invention to apply the surface-mounting configuration in *Fischbach* for a light-emitting device because it is well known in the art that efficient mounting devices may be used interchangeably between light sources and light detectors depending on the desired use of the optical system.

Regarding Claim 6, *Fischbach* teaches in Figures 1 and 4 a surface-mounting type optical device comprising a light-receiving member (2) that is attached at the bottom of the main body (8) of the optical device a portion of which is inserted in the engaging hole of a substrate (3-6, 13) and that receives light emitted from the direction of the interior of the substrate (3-6,

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13), a step portion (7) that is formed in part of the main body (8) of the optical device and engages the substrate (3-6, 13). *Fischbach* further teaches in Figure 4 an electrical contact (16) to connect the light-receiving member (2) to the substrate (3-6, 13) but does not teach that the electrical contact (16) is exactly on the step portion. It would have been obvious, however, to one of ordinary skill in the art at the time of the invention to use particular electrical connections to optimize the efficiency of the light-receiving member by minimizing loss and preventing the device from over-heating.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because they teach various embodiments of surface-mounting optical devices with substrates, light-emitters/detectors, and electrical contact arrangements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davienne Monbleau whose telephone number is 571-272-1945. The examiner can normally be reached on Mon-Fri 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Danielle Menbleau

DNM



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